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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,350	03/06/2002	Stefan Wilhelm	LINDE-581	7250

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EXAMINER

ATKINSON, CHRISTOPHER MARK

ART UNIT PAPER NUMBER

3743

DATE MAILED: 08/25/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091350

Applicant(s)

W. Wilhelm et al.

Examiner

Atkinson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/20/03 + 5/19/03
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/6/02 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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Response to RCE and Amendment

Applicant's arguments filed 5/19/2003 have been fully considered but they are not persuasive.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the insulating vessel, pipes, feed and discharge lines, fractionation plant, fractionation column, principal heat exchanger and eight and ten heat exchanger blocks in two rows must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitation "a heat exchanger" is indefinite since "a heat exchanger" has previously been claims and it is unclear if applicant is claiming an additional heat exchanger or failed to provide proper antecedence.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form

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the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 6-10 are rejected under 35 U.S.C. § 102(b) as being anticipated by applicant cited reference Walter et al. (WO 99/11990). See figures 1 and 2 and page 6, line 10 through page 7, line 26.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 3-5 and 10-16 are rejected under 35 U.S.C. § 103 as being unpatentable over Walter et al. in view of Thompson et al.

The device of Walter et al. discloses all the claimed features with the exception of more than one heat exchanger and a common connecting line.

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The patent of Thompson et al. discloses that it is known to have more than one heat exchanger being movable above its center of gravity, the securing means has two axis of rotation and a common connecting line for repair and inspection of the heat exchanger and for commonly plumbing the heat exchangers together. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Walter et al. more than one heat exchanger being movable above its center of gravity and a common connecting line for repair and inspection of the heat exchanger as disclosed in Thompson et al. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have more than one row, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Claim 17 is rejected under 35 U.S.C. § 103 as being unpatentable over Walter et al. The plate (37) being triangular is considered to be an obvious design choice for size, space and weight considerations which does not solve any stated problem or produce any new and/or unexpected result.

Claims 1-16 are rejected under 35 U.S.C. § 103 as being unpatentable over the known prior art (Jepson type claim) in view of Thompson et al.

The known prior art (Jepson type claim) discloses all the claimed features with the exception of the heat exchanger being arranged movable, more than one heat exchanger, common connecting line and securing joints.

The patent of Thompson et al. discloses that it is known to have more than one heat

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exchanger being movable above its center of gravity, securing joints and a common connecting line for repair and inspection of the heat exchanger and for commonly plumbing the heat exchangers together. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the known prior art more than one heat exchanger being movable above its center of gravity, securing joints and a common connecting line for repair and inspection of the heat exchanger and for commonly plumbing the heat exchangers together as disclosed in Thompson et al. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have more than one row, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Response to Arguments

Applicant's concerns directed toward Walter et al. are not found persuasive. The heat exchanger (17) is moveable via the moveable ropes (25,40,41), straps (37) and bearings (27) as illustrated in figure 2 in Walter et al.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Thompson et al. is only relied upon to teach that it is known to have more than one heat exchanger being movable above its center of gravity, the securing means has two axis of rotation and a common connecting line for


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repair and inspection of the heat exchanger and for commonly plumbing the heat exchangers together. Walter et al., not Thompson et al., is relied upon for a block heat exchanger.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.



C.A.
August 19, 2003

CHRISTOPHER ATKINSON
PRIMARY EXAMINER